ABSTRACT OF THE DISCLOSURE

[1045] The maximum performance state available to a processor in a computer system, in terms of operating frequency and/or voltage, changes according to thermal criteria. When the temperature increases above a predetermined threshold, the maximum performance state available is reduced. Multiple temperature thresholds may be utilized providing for a gradually reduced maximum performance state as temperature increases. When the temperature returns to a lower level, the maximum performance state available is increased. Changing the maximum available performance state according to temperature provides for more gradual reduction in performance as temperature increases, which results in higher average system performance as temperature increases. Thus, a more gradual reduction in performance is provided while still maintaining a high speed rating of the processor in more ideal conditions. In normal operating conditions, high processor performance is provided, while slightly reduced performance is provided in abnormal operating conditions.